

Date: Friday, 9/14/2007 2:01:59 PM  
 User: Kim Johnston

## Process Sheet

Customer	: CU-DAR001 Dart Helicopters Services		Drawing Name	: CROSSTUBE EXTRUSION (407 AFT)	
Job Number	: 34689		Part Number	: D6011115	
Estimate Number	: 11978		Drawing Number	: D6011 REV A   <i>RE</i>	
P.O. Number	: N/A		Project Number	: N/A	
This Issue	: 9/14/2007 S.O. No. : N/A		Drawing Revision	: A   <i>RE</i>	
Prsht Rev.	: NC		Material	: N/A	
First Issue	: N/A		Due Date	: 1/30/2008 Qty: 10 Um: Each	
Previous Run	: 32307				
Written By	:				
Checked & Approved By	:				
Comment	: Est Rev:A 01.08.17 New Issue SM				

## Additional Product

Job Number:



Seq. #:	Machine Or Operation:	Description :
1.0	PG	PURCHASING 
Comment: PURCHASING Issue P/O: <u>4611</u> <i>CD 7/09/18</i> <i>(10)</i> a) Order as per Dwg D6011 b) Material: 2.750 x 0.650 wall 7075-T6/T6511 (WW-T-700/7 or QQ-A-225/9 or QQ-A-200/11) seamless aluminum tube c) Minimum ultimate tensile strength = 77 ksi d) Minimum tensile yield strength = 66 ksi e) Tolerance are per ASTM B210 (see details on Dwg D6011) f) Material certification required		
2.0	D6011115P	Crosstube Material 
Comment: Qty.: 1.0000 Each(s)/Unit Total : 10.0000 Each(s) Crosstube Material		
3.0	PACKAGING 1	PACKAGING RESOURCE #1 
Comment: PACKAGING RESOURCE #1 Receive & Inspect For Transit Damage Ensure material certification is attached <i>8/01/03</i> <i>(11)</i>		
4.0	QC6	DIMENSIONAL CHECK 
Comment: DIMENSIONAL CHECK Ensure Material certification comply to Dwg <i>8/01/04</i> <i>(11)</i>		

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes  No  DQA:  Date: 08/01/07  
QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

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Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: CROSSTUBE EXTRUSION (407 AFT)

Job Number: 34689

Part Number: D6011115

Job Number:



Seq. #: Machine Or Operation:

Description:

5.0 HAND FINISHING1

HAND FINISHING RESOURCE #1



Comment: HAND FINISHING RESOURCE #1

Chemical Conversion Coat as per QSI 005 4.1

6.0 PACKAGING 1

PACKAGING RESOURCE #1



Comment: PACKAGING RESOURCE #1

Identify and Stock

Location: MAT 27

JF.

08/01/04

7.0 QC21

FINAL INSPECTION/W/O RELEASE



Comment: FINAL INSPECTION/W/O RELEASE

08/01/07

Job Completion



in 2008 1/14  
U

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

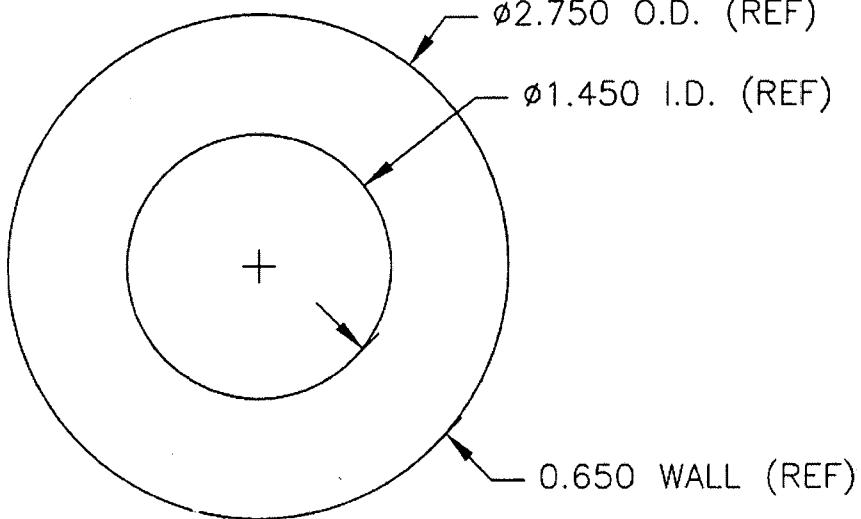
Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_  
 QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

**DART**COPY  
GIVEN TO

DESIGN	DRAWN BY	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
CHECKED	APPROVED	DRAWING NO.	REV. A
		D6011	SHEET 1 OF 1
DATE		TITLE	SCALE
01.08.16		CROSSTUBE MATERIAL	1:1
A	01.08.16	NEW ISSUE	
A1	02-01-29	UPDATE TOLERANCE ON OD.	

SPECIFICATION CONTROL DRAWING**RELEASED**  
01.08.17NOTES

1) D6011-XXX CROSSTUBE  
 LENGTH

WHERE XXX IS LENGTH IN INCHES  
 EG. 115" LONG TUBE: D6011-115

2) MATERIAL: 2.750 OD x 0.650 WALL 7075-T6/T6511 (WW-T-700/7 OR QQ-A-225/9 OR QQ-A-200/11) SEAMLESS ALUMINUM TUBE.  
 MINIMUM ULTIMATE TENSILE STRENGTH = 77 ksi  
 MINIMUM YIELD TENSILE STRENGTH = 66 ksi

3) TOLERANCES ARE PER ASTM B210 AS FOLLOWS: ANSI H35.2 AS FOLLOWS  
 O.D.: ~~± 0.006~~ MEAN (~~± 0.012~~ INCLUDING OVALITY) ~~± 0.015~~ MEAN (~~± 0.030~~ INCL. OVALITY)  
 WALL: ~~± 0.020~~ MEAN (~~± 0.065~~ INCLUDING ECCENTRICITY)  
 LENGTH: XXX ~~+0.125/-0.000~~  
 STRAIGHTNESS: 0.010" DEVIATION / 12" LENGTH

4) EXTREME CARE MUST BE TAKEN TO PROTECT THE OUTSIDE SURFACE OF THE TUBE. OUTSIDE SURFACE MUST BE SMOOTH AND FREE FROM SURFACE DEFECTS SUCH AS SCRATCHES, NICKS, OR DENTS. DEFECTS UP TO 0.005" MAY BE BLENDDED OUT LONGITUDINALLY. CIRCUMFERENTIAL GRIND MARKS ARE UNACCEPTABLE.

5) CHEMICAL CONVERSION COAT PER DART QSI 005 4.1

A1

SHOP COPY

RETURN TO

ENGINEERING

INCORRECTED COPY  
SUBJECT TO AMENDMENT

WITHOUT NOTICE

WORK ORDER

NO. 34689

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# TUBES LIMITED

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## Approved Certificate According to EN10204:2004 3.1

For all Customer and 3rd Party approvals  
visit [www.batubes.com](http://www.batubes.com)

No. C/151440/1

						Other Tests Passed										
EROSPACE LIMITED 13 ERDEEN STREET SBURY O A 7				Your Order No PO00004611												
				Your Part No D6011-115P												
				Our Order No 94945/8												
				Packing Note No 151440												
				Date 30/11/07												
				Packages 1 CASE												
Description LESS EXT TUBE 2.750 INS O/D .650 INS W/T 7075 Alloy 115.08 inches				Specification 7075 TC QQ-A-200/11E												
Nett Weight Lbs		Tensile Test				Chemical Analysis %										H cc/ 100 gm
		Test No	0.2% Proof Stress KSI	Tensile Strength KSI	% Elongation 4 x Dia	Heat or Cast No	Si	Fe	Cu	Mn	Mg	Cr	Ni	Zn	Zr	Ti
549		331217 LO	73.0	85.6	7	2N267	.09	.26	1.53	.04	2.58	.19	.01	5.85	.01	.03 .16

CASE NO.12978

### ALLOY MELTED IN THE UNITED KINGDOM

Authorised Inspection Representative

Barry Layton For and on behalf of BA Tubes

Established in England No. 3981396  
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